REMARKS

These remarks are responsive to the Office Action dated February 7, 2005. Claims 1-33 are pending.

Applicant thanks the Examiner for her consideration of the application. In the Office Action, the drawings were objected to under 37 C.F.R. 1.83(a). Claims 1-15 and 28-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,808,271 to Kurematsu ("Kurematsu") in view of U.S. Patent No. 4,773,731 to Goldenberg ("Goldenberg"). Claim 16 was objected to as containing a table. Claims 17-18 were objected to as falling within the parent claim. Claims 19-27 were allowed. Applicant thanks the Examiner for the indications of allowability. Applicant respectfully traverses the rejections, but nevertheless amends the claims as indicated above. In view of the remarks below, Applicant respectfully requests reconsideration of the application under 37 C.F.R. § 1.111 and allowance of the pending claims.

Drawings

The drawings are objected to under 37 C.F.R. 1.83(a) for not showing that the "plurality of bumps has a different size than another one of the plurality of bumps"(claim 2), "plurality of bumps is randomly distributed over the output side of the Fresnel lens" (claims 4, 7 and 11), " and at least one of the plurality of bumps has a different shape than another one of the plurality of the plurality of bumps" (claim 5) and "each of the plurality of bumps has a different shape." (claim 6) Applicant respectfully directs the Examiner's attention to Figure 13 and paragraph 0072 which states "[0072] In an embodiment, bumps 1370 are lenticular bumps. The term lenticular bump broadly refers to a bump having a convex cylinder shape. In alternative embodiments, bumps 1370 are two-dimensional hills that are regularly or randomly distributed across the output side of Fresnel lens 1310. In an embodiment, at least one bump 1370 (e.g., 1370A) has a different size and/or shape than another bump (e.g., 1370B)." Applicant respectfully asserts that 1370A and 1370B therefore indicate a bump which has a different shape or size than another bump, Fig. 13 indicates a plurality of bumps randomly distributed over the output side of the Fresnel lens, and an instance in which each of the plurality of bumps has a different shape. Therefore Applicant believes that all features of claims 2-7 and 11 are shown in the drawings and additional drawings are not necessary for the understanding of the invention. Applicant respectfully requests this objection be withdrawn. However, if the Examiner believes additional clarification is necessary, Applicant will be happy to provide it. For example,

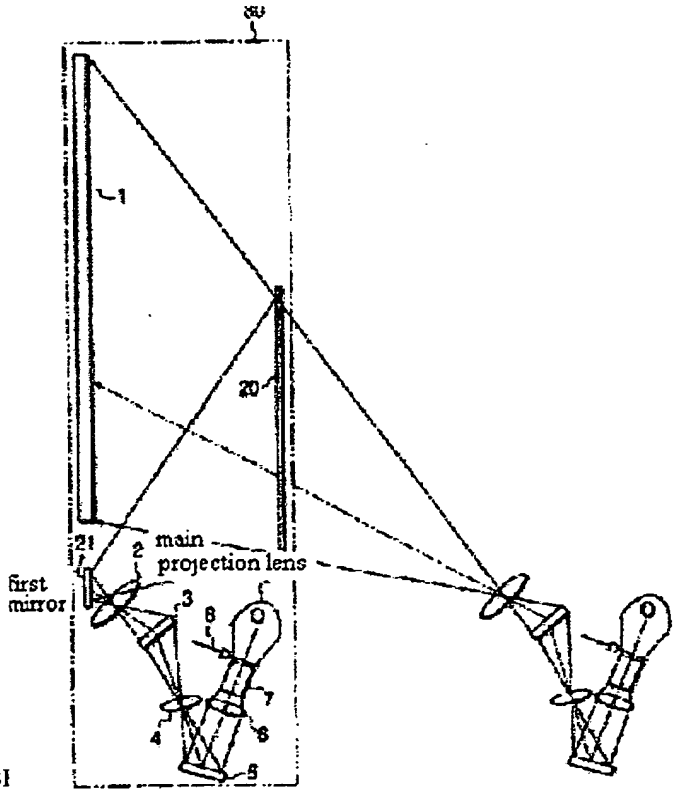
Applicant can provide additional drawings showing different sized bumps and/or random distribution of bumps.

Claim 1

Claim 1 has been rejected under 35 U.S.C. §103(a) over Kurematsu in view of Goldenberg. The office action states that Kurematsu teaches the salient features of the present invention except a Fresnel lens having a plurality of bumps on an output side of the Fresnel lens and that Goldenberg discloses a Fresnel lens having a plurality of bumps on an output side. Applicant respectfully traverses this rejection.

Kurematsu discloses formation of an intermediate trapezoidal image for use in an oblique projection system. Kurematsu does not teach, suggest or disclose a system as described in applicant's claim 1. Specifically, there is no teaching, disclosure or suggestion of a system where "the intermediate mirror is substantially perpendicular to the optic axis of the lens system."

As can be seen in Figure 2 of Kurematsu, the intermediate mirror (21) is not substantially perpendicular to the optic axis of the lens system (2) but in contrast is at angle other than



Kurematsu Fig. 2 Annotated

perpendicular. Moreover, the angle in Kurematsu is necessary to accommodate the oblique optical system of Kurematsu which utilizes Scheimpflug rule. (see col. 3, lines 40-45, and col. 4, lines 6-19).

In contrast, applicant's claim 1 recites that the intermediate mirror is "substantially perpendicular to the optic axis of the lens system". An example is shown in applicant's Figure 13. As described above, there is no teaching or suggestion in Kurematsu of an intermediate mirror substantially perpendicular to the optic axis of the lens system. Kurematsu therefore does not teach or suggest the invention as currently claimed. Goldenberg does not include any disclosure directed toward the configuration of the optical system. Applicants therefore respectfully assert that the combination of Kurematsu and Goldenberg does not teach or suggest the present invention as currently claimed and respectfully request the rejection be withdrawn.

In addition, while Applicant agrees that Goldenberg discloses a Fresnel lens, Applicant asserts that there is no teaching of a plurality of bumps affixed to or formed on an output side of the Fresnel lens. Specifically, applicant has amended claim 1 to clarify the bumps are "affixed to or formed on" (see applicant's disclosure paragraph 0070) on an output side of the Fresnel lens.

The Office Action refers to 320 and 322 in Goldenberg as representing a plurality of bumps on an output side of the Fresnel lens. Applicant respectfully asserts that there is no description or naming of 320 and 322 in Goldenberg, making it difficult to ascertain the precise nature of these elements. Furthermore, there is also no mention in Goldenberg of bumps or any other irregularity on an output side of the Fresnel lens. In fact, claim 4 of Goldenberg

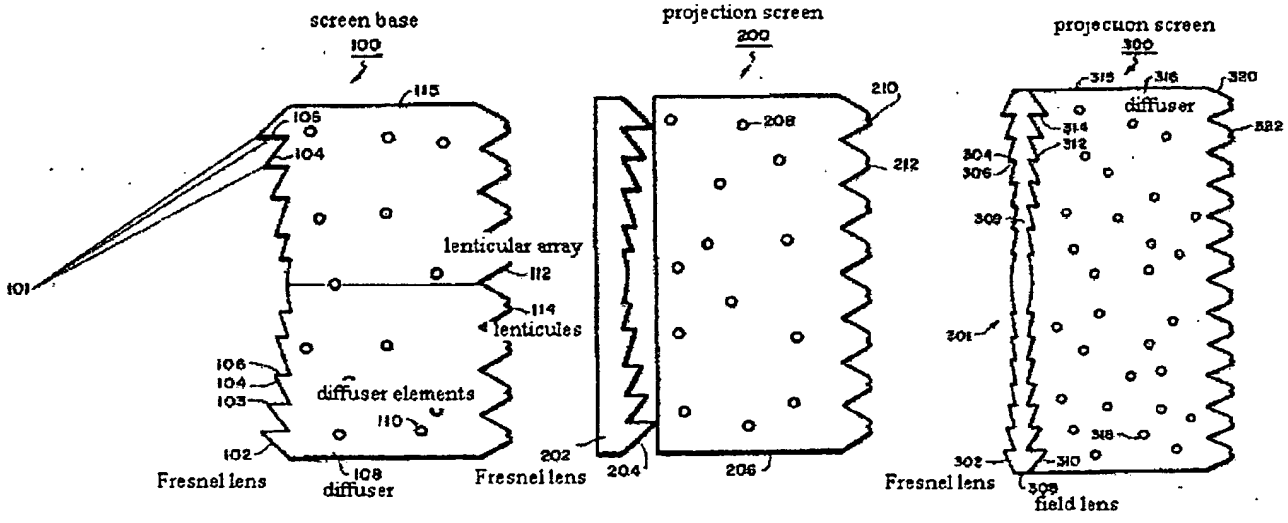


FIG.1
PRIOR ART

FIG.2
PRIOR ART

FIG.3

Goldenberg Annotated

specifically states that the lenticular array (112, and possibly 212 and 320) is coupled to the diffuser, not the Fresnel lens.

Figures 1 and 2, above, in Goldenberg are described as prior art and are similar to Figure 3, also above, which depicts the Goldenberg invention. All three figures depict horizontal cross-sectional representations of a projection screen. As can be seen above in Figure 1, the lenticular array and the lenticules, if they are such, are part of the diffuser, and are not part of or affixed to the Fresnel lens. This is supported in Figure 2, which separates the Fresnel lens 204 from the screen. "The projection screen 200 in FIG. 2 eliminates the edge luminance reduction problems of the projection screen 100 in FIG. 1 by a separation of its field lens 202, which contains a Fresnel lens 204, from the remainder of the screen." (Column 2, lines 38-42) While 210 and 212 in Figure 2 are not described, the elements appear to not be a part of the Fresnel lens. Similarly, 320 and 322 in Figure 3 are neither described nor named in the patent, but are located on 316, the diffuser, not Fresnel lenses 302 and 310. They are therefore not believed to be elements "affixed to or formed on an output side of the Fresnel lens" as recited in claim 1 of the present application. Goldenberg, therefore does not teach, suggest or disclose the plurality of bumps affixed to or formed on an output side of the Fresnel lens as currently recited and the combination of Goldenberg and Kurematsu does not teach, suggest or disclose the present invention as currently claimed. Applicant respectfully requests this rejection be withdrawn.

Claims 2 - 14

Claims 2-14 have been rejected under 35 U.S.C. §103(a) over Kurematsu in view of Goldenberg. Claims 2-14 are dependent on claim 1. Because dependent claims include the limitations of the claims from which they depend, Applicant respectfully submits that claims 2-14 are allowable for at least the reasons cited above.

Claim 12

Claim 12 has been rejected under 35 U.S.C. §103(a) over Kurematsu in view of Goldenberg. The Office Action states that Goldenberg discloses a Fresnel lens (302,310) having a plurality of bumps (320-322) on an output side of the Fresnel lens (310); wherein the plurality

of bumps comprises a plurality of lenticular bumps. Applicant respectfully traverses this rejection.

Claim 12 is dependent on claim 1. Because dependent claims include the limitations of the claims from which they depend, Applicant respectfully submits that claim 12 is allowable for at least the reasons cited above in claim 1. Furthermore, lenticular, generally defined, means convex on both sides. The present application defines a lenticular bump as "a bump having a convex cylinder shape."(Paragraph 0072). The lenticules (114) in Figure 1 of Goldenberg, above, do not appear to have a convex cylinder shape. It is well established that each patentee may "choose to be his own lexicographer and use terms in a manner other than their ordinary meaning as long as the special definition of the term is clearly stated in the patent specification" Vitronics Corp. v. Conceptronic Inc., 90 F.3d 1576 at 1582 (Fed. Cir. 1996) citing Hoechst Celanese Corp. v. BP Chems. Ltd., 78 F.3d 1575, 1578, 38 USPQ2d 1126, 1129 (Fed. Cir. 1996), cert. denied, 519 U.S. 911, 136 L. Ed. 2d 198, 117 S. Ct. 275 (1996)). The lenticules in Goldenberg are of a different shape and in a different location than the lenticules as claimed in claim 12 of the present application. There is no teaching or suggestion in Goldenberg that the lenticules could be a different shape or in a different location and the combination of Kurematsu and Goldenberg therefore does not teach or suggest the invention as currently claimed. Applicant respectfully requests this rejection be withdrawn.

Claim 15

The Office Action states that Kurematsu discloses "a display device (30) comprising a lens system (2) to project an image, a substantially planar back plate mirror (20) to reflect the image to the Fresnel lens..., the back plate mirror (20) substantially parallel to the Fresnel lens. ..; and a substantially planar intermediate mirror (21) to reflect the image projected by the lens system (2) to the back plate mirror (20), the intermediate mirror (21) being substantially parallel to the back plate mirror (20), where in the intermediate mirror (21) is substantially perpendicular to the optic axis of the lens system (2)" and that Goldenberg discloses "the Fresnel lens having an output ray angle of substantially zero near a center of the Fresnel lens and an output ray angle whose magnitude increases as a radial distance (R) from the center increases." Applicant respectfully traverses this rejection.

As discussed above, the intermediate mirror (21) of Kurematsu is not substantially perpendicular to the optic axis of the lens system (2). Claim 15 recites that the intermediate mirror is "substantially perpendicular to the optic axis of the lens system". There is no teaching or suggestion in Kurematsu or Goldenberg that any angle other than the angle shown in Figure 2 would be effective. Kurematsu therefore does not teach or suggest the invention as currently claimed. Applicants therefore respectfully assert that the combination of Kurematsu and Goldenberg does not teach or suggest the present invention as currently claimed and respectfully request it be withdrawn.

Claim 16

Claim 16 is objected to for containing a table. Applicant respectfully submits that Patent Rule § 1.58 Chemical and mathematical formulae and tables in claims part (a) states in the relevant portion, that "claims may contain tables either if necessary to conform to 35 U.S.C. 112 or if otherwise found to be desirable." Applicant respectfully submits that the table in Claim 16 is the simplest way to present the relevant information and requests this rejection be withdrawn.

Claims 17 and 18

Claims 17 and 18 are objected to for containing information in the parent claim. Applicant respectfully submits that dependent claims are proper when they add a further limitation to the parent claim (608.01(n)). Claims 17 and 18 limit λ to a specific degree or range of degrees to which Claim 16 is not limited, and therefore add a limitation to the claim to which they refer and are proper. Applicant respectfully requests this objection be withdrawn.

Claims 19-27

In indicating that claims 19-27 were allowable, the Examiner paraphrased Applicant's claimed invention as part of the stated reasons for the allowability of these claims. Applicant agrees with the Examiner's conclusions regarding the patentability of these claims, without necessarily agreeing with or acquiescing to the Examiner's reasoning. In particular, Applicant believes that the claims are allowable because the prior art fails to teach or suggest the invention as claimed, independent of how the invention is paraphrased.

Claim 28

Claim 28 has been rejected under Kurematsu in view of Goldenberg under 35 U.S.C. 103(a). As described above and as can be seen in Figure 2 of Kurematsu, the intermediate mirror (21) is not substantially perpendicular to the optic axis of the lens system(2). Claim 28 recites that the intermediate mirror be "substantially perpendicular to the optic axis of the lens system". Thus, for the reasons described above, Applicant respectfully submits that claim 28 is allowable for at least the reasons cited above.

Claims 29-32

Claims 29-32 depend on claim 28. Because dependent claims include the limitations of the claims from which they depend, Applicant respectfully submits that claims 29-32 are allowable for at least the reasons cited above.

Claim 33

Neither Kurematsu nor Goldenberg disclose, teach or suggest the display device as currently claimed in claim 33. Applicant respectfully submits that claim 33 is allowable for at least the reasons cited above.

Applicant believes that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, Applicant respectfully requests that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO at (703) 872-9306 on May 9, 2005.

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